

Abstract

In a process for producing polymer moldings with functional surfaces, in which a coating is produced on a support sheet, the coated support sheet is shaped and backed by injection molding or foaming with a liquid polymeric material, and the coating, if this has not already taken place, is cured or aftercured, the coating is covered at least temporarily with a protective sheet which has

- a storage modulus E' of at least 10^7 Pa in the temperature range from room temperature to 100°C ,
- an elongation at break $> 300\%$ at 23°C longitudinally and transversely to the preferential direction produced by means of directed production processes in the production of (S),
- a transmittance $> 70\%$ for UV radiation and visible light with a wavelength of from 230 to 600 nm for a filmthickness of 50 μm

and whose side facing the coating has

- a hardness < 0.06 GPa at 23°C and
- a roughness corresponding to an R_a from $50\text{ nm}^2 < 30\text{ nm}$ as determined by means of atomic force microscopy (AFM)